

NOTES ON THE STATUS OF THE GANNET (*MORUS BASSANUS*) IN THE GULF OF MEXICO, WITH A RECORD FROM MISSISSIPPI

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ABSTRACT The Northern Gannet nests on rock cliffs in the north Atlantic and winters as far south as Yucatan on the west, and N.W. Africa on the east. The birds are not known to cross land and seem to fly around Florida to enter the Gulf of Mexico. Most numbers have been reported off Louisiana, Mississippi, Alabama and the Florida panhandle. Numbers in the western Gulf seem to be few. There are 12 skeletal parts or skins of Texas gannets in museums in Texas and Louisiana. Two specimens have been collected in Louisiana, only one of which is known to remain. There are 6 specimens from the Mississippi coast (one from the high seas) in Mississippi and Louisiana museums, none from Alabama and 10 from south Florida. Gannets have been reported previously from the Gulf in every month but August. A live specimen was taken in Mississippi Sound on August 10, 1977 following heavy squalls. It was immature. It died on the same day. The skin was deposited in The Fanny A. Cook Memorial, the Mississippi Museum of Natural History, cataloged as Ab 5019.

GENERAL REMARKS

It has been said that "...so little is known about the real distribution of seabirds over the Gulf that in many cases their very presence is merely inferred from their occurrence in coastal situations after storms," (Lowery and Newman 1954). This is true, of course, and the only gannet the senior author ever saw previously (Gunter 1945) was caught after being blown into a fish house during a spell of heavy weather in south Texas. The present account also concerns a gannet taken following gale winds on Mississippi waters. First, however, we would like to review the whole situation regarding gannets in the Gulf as a background to the full import of this record.

According to Arthur (1931) the word gannet is derived from the Anglo-Saxon word *ganot* for sea fowl or fen duck. He adds that the species name *bassanus* is derived from the Bass Rocks of the Firth of Forth in Scotland where the bird nests in great numbers. The generic word *Morus* seems to be derived from the Latin word for fool and relates the gannet to the boobies. These short-legged birds sprawl about clumsily and, by anthropocentric attribution, stupidly on land. They are obviously made for the water and the air and not the land.

Gannets have three separate antipodal populations, one from the North Atlantic ranging to the Tropic of Cancer and beyond in the winter; one around the southern half of Africa ranging north to the Equator; and the third around New Zealand and the southern half of Australia, see A. W. Schorger and R. S. Palmer in Palmer (1962). The three populations are classed as subspecies of *bassanus*. In terms of that usage the Northern Gannet is *Morus bassanus bassanus* (Linnaeus).

It should be noted, however, that in reference to the Northern Gannet, Oberholser (1974) says "No subspecies." He had firm opinions about avian taxonomy based on reasons he usually expressed clearly, but in this instance his reasons

are unknown, although the implication is that all three populations are full species.

The Northern Gannet nests on the cliffs of rocks and islands in the Gulf of St. Lawrence and off Newfoundland and Iceland, the Faeroes and the British Isles and it winters south to Florida and the Gulf of Mexico on the west, and on the east to the Azores, Canary Islands, North Africa and the Mediterranean (cf. Palmer 1962 and Oberholser 1974).

Palmer states that although the birds are usually found out of sight of land that they do not often get beyond the continental shelf. This is to be expected for during the past 50 years marine biologists have learned that the great abundance of life in the oceans extends from the shore to the edge of the shelf with the great depths and the mid-ocean surfaces being relatively barren.

It is worth remembering that Oberholser says the gannet is the most spectacular bird in the chill gray North Atlantic and that these waters have been known poetically for 10 centuries as the Gannet's Bath. Even so, the gannet is a predatory fisher and in the winter it must go south to where the fishes are found near the surface. The bird is a high diver and goes in from altitudes of 3 to 100 feet; under water it is generally a shallow swimmer although it has been caught in nets as deep as 14 fathoms (Oberholser 1974).

GULF OF MEXICO RECORDS

Texas

Oberholser says the gannet comes rarely to Texas. He says there are 25 definite records on the east Texas coast but only 2 on the south Texas coast, and that it is uncommon in the western Gulf, although it was reported once from Veracruz, Mexico. However, this account is a bit garbled and in the fine print, so to speak, Oberholser lists 10 specimens now extant in Texas, either as skeletons, a skull or skins, at the Texas A&M Museum of Vertebrate Zoology, the Texas A&I University at Kingsville, the Corpus

Christi Museum and the Welder Wildlife Refuge collection. These were all taken since 1966 and 7 of them come from south Texas and only 2 from east Texas. Oberholser further lists 7 specimens that were carefully identified but not saved. These include 4 specimens from Galveston County and Jefferson County (east Texas) and 3 from Aransas County and Nueces County including the 1944 specimen the senior author reported (Gunter 1945).

The privately printed publication by Hagar and Packard (1952) covers some 17 years of intensive bird observation in Aransas County and nearby in south Texas by two master observers. The gannet was seen twice. It must be noted, though, that these two observers did not go often to the barrier islands and made most of their observations of seabirds from the mainland shore.

In a telephone conversation of October 6, 1977, Dr. George H. Lowery, director of the Museum of Natural History at Louisiana State University, informed the senior author that the Museum had two skins from Galveston, Texas. He stated that it also had one specimen from Norway. Counting these 2 Louisiana specimens there are 12 specimen records of gannets taken from Texas in museums in the Gulf States. Oberholser listed at least 43 sightings by authoritative observers and the number seen must have been considerable.

We have made no attempt to find out what Texas gannet specimens might lie in other museums of this country.

One gathers the impression that Oberholser's ideas about scarcity of gannets in the Western Gulf are correct and that they are based chiefly upon the numerous sightings of several birds at a time on the east Texas coast and even farther east, the likes of which have not been reported in south Texas. It should be noted that these south Texas reports and records are from the western Gulf at about the latitude of Tampa and Hollywood, Florida; and so it may be said that the Northern Gannet is a visitor in small numbers during the winter in the western Gulf of Mexico.

Scarcity of these birds in the western Gulf apparently comes about because they all come down the Atlantic coast and are not known to cross the continent or even the Peninsula of Florida while coming from their nesting rocks to the Texas coast. Lowery (1974) reported seeing these birds off Yucatan, which is the most southerly sighting recorded so far as we know.

Louisiana

In Louisiana, Beyer (1900) indicated that gannets were quite common around The Rigolets in the latter 1800's and he listed a collection made on December 9, 1886. This specimen presumably rested at Tulane and Lowery (1974) says 88 years later that it remains the only record from the state, although the birds are quite often seen off the mouth of the Mississippi River.

Arthur (1931) says that the gannet is rarely seen in

Louisiana and then is usually found with a number of its fellows. In that volume, of which he was largely the compiler for the Louisiana Department of Conservation, an unlabeled photograph of what apparently is a well-mounted bird is presented at the head of the section on Sulidae, the boobies and gannets. It seems to be an immature gannet standing on the edge of a marsh. The habitat is unlikely for a bird that hatched out on a towering rock cliff in the cool temperate zone, but as gannets do come to the Louisiana coast some of them inevitably end up in the marsh. In any case the plumage pattern corresponds well with what Oberholser (1974) ascribed to a well-advanced immature bird. In a letter dated August 24, 1977 Mr. Gene Stock of the Louisiana Wildlife and Fisheries Museum, which essentially is a collection of mounted birds in New Orleans, informed the senior author that there is no gannet in that collection at present. The source of Arthur's photograph is unknown.

Oberholser (1938) adds nothing to the previous information on Louisiana gannets except to say that several specimens were "taken" formerly at The Rigolets as stated by Beyer (1900) but none were saved except the one specimen noted.

Lowery and Newman (1954) state that gannets have been seen "between . . . the Mississippi Delta" and Yucatan, and say there is one definite record from Louisiana, apparently in reference to Beyer's specimen. Lowery (1974) repeats the statement about one specimen and says that he was the observer on the Mississippi River-Yucatan transect.

In the telephone conversation noted previously, Doctor Lowery stated that the Louisiana State University Museum of Natural History had acquired a specimen from Grand Terre, a barrier island off the Louisiana coast in Jefferson Parish, taken on January 27, 1970 and which is now specimen number 68101, a skin, in the Museum. So after a lapse of almost 85 years Louisiana has acquired a second local gannet specimen. Inquiries to Tulane about Beyer's now aged specimen have gone unanswered.

Alabama

Lowery and Newman (1954) say there are three definite records for Alabama. Imhof (1962) lists gannets at Gulf Shores, Sand Island Light and an exhausted bird at Fort Morgan from November 1957 to September 1960. These records could not be the ones referred to by Lowery and Newman (1954). Imhof says gannets are commonly seen offshore from 100 yards to 5 miles off the Gulf beach east of Mobile Bay. He lists 103 seen off that coast and Dauphin Island on April 21, 1956. None of these have been listed as collected specimens.

Dr. H. T. Boschung, director of the Museum of Natural History, University of Alabama, notified us in a letter dated September 27, 1977 that the museum staff members were not acquainted with any anatomical relic of a gannet in Alabama.

Florida

With regard to Florida, Lowery and Newman (1954) say there are four definite records from the Dry Tortugas and vicinity. They say gannets are commonly sighted from the Pensacola Beach where F. M. Weston has reported 51 in a 45-minute period.

Dr. O. T. Owre of the University of Miami Ornithological Collection informed me in a telephone conversation on September 13, 1977 that there were four skins in his collection all from south Florida.

It is apparent from the accounts given above concerning eastern Texas, Louisiana, Alabama and north Florida that gannets are quite common and sometimes are seen in large numbers in the offshore waters of the northern Gulf of Mexico. It follows that if the surmises concerning gannets not flying across continental land are correct, even including the Peninsula of Florida, then the waters of the Keys and the southern tip must contain an abundance of these birds at certain times of the year as they go around Florida to enter the Gulf of Mexico.

Mississippi

In Mississippi records of the gannet are rather scarce, and Burleigh (1944) did not list the species. Insofar as our coast is only 68.8 airline miles from east to west (Gunter 1976), and gannets have been recorded only a few miles to the east and west, we could rest content with the general statement of Lowery (1974) who said that the gannet moves southward along the Atlantic coast in winter and quite a few enter the Gulf of Mexico, arriving as early as September and leaving as late as May 14. However, there are other concerns.

Lowery and Newman (1954) say there is one record for Mississippi and this apparently refers to a sight record, as noted in the following quote from Williams and Clawson (1963, p. 190):

Although the Gannet is regularly found in the Gulf of Mexico in winter and early spring, it had been reported from Mississippi waters only twice before the winter of 1960-61. G. H. Lowery, Jr. and R. Newman (U. S. Fish and Wildlife Serv., Fishery Bull. 89: 524, 1954) mentioned one record and F. C. James (Aud. Field Notes, 14: 315, 1960) reports 54 seen by John Walther and J. M. Valentine on 15 March 1960, between Ship Island in Mississippi and the Chandeleur Islands in Louisiana. In 1961 several sightings were reported, including 43 seen in Mississippi Sound on 16 January by H. D. Haberyan (Newman, Aud. Field Notes, 15: 335, 1961).

These authors go on to say that on February 12, 1961 they found hundreds of gannets one to ten miles south of Horn Island and took two specimens. One was an adult male taken three miles south of Horn Island. Gandy and Turcotte (1960) list the first bird as Ab 4842 from Harrison County

(it should be Jackson) in the Fannye A. Cook Memorial Museum in Jackson, Mississippi. Another was said to be eight miles farther out (which was beyond the waters of the state). It went to the Louisiana State University Museum. The same authors reported the gannet as abundant as before in the same area on February 24, 1962. Another bird taken by Clawson on the east end of Petit Bois Island on February 24, 1962, is Ab 4815, in the Fannye A. Cook Memorial Museum. They reported a juvenile 150 yards from the mainland near Biloxi on March 31, 1962. Both of the collected specimens were listed as skins in the collection of the Fannye A. Cook Memorial Museum by Gandy and Turcotte (1970).

In the telephone conversation noted previously, Dr. George H. Lowery, Jr. mentioned the two Mississippi collections now in the Louisiana State University Museum taken by Williams and Clawson (1963). One was taken near the west tip of Horn Island and the other was from eight miles south of Horn Island, mentioned above.

In a letter dated September 28, 1977, Dr. M. Ralph Browning stated that there were no specimens of the gannet from Alabama, Mississippi or Louisiana in the National Museum of Natural History.

This summarizes recorded information on the gannet in Mississippi waters. Hundreds are seen at times in midwinter and four were collected in February 1961 and 1962. There are no other printed records.

A NEW MISSISSIPPI RECORD

On August 10, 1977, a Mississippi sports fisherman, Hiram (Mack) Jones notified the Laboratory telephone operator that he had in his possession a disabled, strange bird at the Gulf Park Marina near Ocean Springs. It had been taken from Mississippi Sound earlier that day at approximately the mid-point of a line between the west end of Horn Island and the east end of Deer Island, in Jackson County. Jones described the bird as floating high in the water with dry plumage. At the time of its discovery, it would occasionally lapse into a convulsive state with much coiling of the neck and vigorous gaping. When the bird was taken from the water, it stabilized momentarily and escaped, flying approximately 10 meters, whereupon it resumed the convulsion. The bird was retrieved and brought to the marina near Ocean Springs. The writers visited the marina at about 11:30 a.m. and saw the bird, a gannet, which appeared to be alert and strong a few hours after its capture. It yakked at us quite loudly, disproving the statement of Oberholser that they appear to be vocal only on the "ganetry," and bit the junior author hard enough to cause a wound when he force fed it the tail of a penaeid shrimp. We left the bird with Mr. Jones and hoped that it would recover for it had no apparent injuries. Nevertheless, within a few hours it was dead. Jones said that it was infested with minute "ant-like" ectoparasites and he applied a liberal

quantity of Sevin pesticide dust. Shortly after the bird succumbed. Sevin is fairly mild and we doubt that it killed the gannet.

It was conjectured that the bird had been injured by dashing into a large submerged object during the course of feeding or that it had been buffeted about by local squalls. Seas were estimated by Jones to be running up to 3 meters high in Dog Keys Pass on that date, and the force of the wind was sufficient to blow the top off these waves, suggesting winds from 30 to 40 knots. These high energy winds were from the southeast. Weather records of the Keesler Air Force Base at Biloxi showed winds up to about 35 knots at about the time of the capture. Large squalls were present on the Gulf coast at this time.

Morphometrics of the specimen include a total wing span of 170.4 centimeters at full extension and a total extended length of 89.5 centimeters. The weight of the bird was not ascertained for it had been eviscerated earlier by a team of zealous parasitologists at this Laboratory.

The color was that of an immature bird; the back and wings were a light grayish brown with no speckles and the lower parts were dull white. The upper wings and a connecting stripe across the back were darkest. There were no white splotches on the back and the bird seemed to be a second year immature or second winter bird, as described by Oberholser (1974), or possibly even more advanced.

Most gannets of the Gulf of Mexico are immatures, and Weston (see Lowery and Newman 1954, p. 524) has estimated that the ratio is twelve immatures to one adult.

According to Van Tyne and Berger (1959), studies by A. Landsborough Thomson on British gannets have shown that the younger birds migrate the greatest distance seasonally and the mature birds stay closer to home. If this situation holds among the western gannets it will skew the distribution of old and young from north to south, and there should be a greater number of mature gannets on the Virginia coast and northward in the winter than is found in the Gulf. On the other hand, this may not show in collections because collectors probably select the fully mature, white birds.

Gannets have been reported previously in the Gulf every month except August and with this specimen that monthly gap is filled. Insofar as plumage pattern is that of a second winter bird or later, the question arises as to whether it is an early migrant or a lingerer from late spring. The weather might be invoked, but which way? The Gulf and Caribbean waters were cooled during the last severe winter to the extent that no strong West Indian hurricanes and only one small weak one developed in 1977. On the other hand during August 1977 official temperatures of 20°F befell parts of the northern United States. The first situation would cause gannets to linger on in the Gulf presumably, while the second would drive them south very early in the season. Which case is correct for the specimen at hand, is not known.

This specimen is now deposited in the Fannye A. Cook Memorial, the Mississippi Museum of Natural Science in Jackson, Mississippi, where it has been made into a skin cataloged as Ab 5019.

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